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No. 53



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CHINA REPORT
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'GUANGMING RIBAO' URGES EFFICIENT USE OF FORESTS

Beijing XINHUA in English 0237 GMT 24 Aug 79 OW

[Text] Beijing, 24 Aug (XINHUA)—China should fell less timber to preserve ecological balance in the long-term interests of the country, says Yu Guangyuan, vice-president of the Chinese Academy of Social Sciences, in a letter carried by today's GUANGMING DAILY.

The Chinese Forestry Society in another letter criticizes wasteful exploitation of the forests in the western part of Sichuan Province. Large tracts of mountain slopes have lost their forest cover, the climate in the area has been affected and the soil seriously eroded.

Yu Guangyuan recommends great efforts to produce more plywood and synthetic timber materials so that more of the trees felled are used fully. Sawmill refuse made up 37 per cent of the 1978 timber output.

But the utilization rate for plywood was only 10 per cent. Japan in 1968 used 54 per cent and West Germany in 1970 used 63 per cent, he notes.

Development of plywood production, which does not require large investment, will help reduce the number of trees to be felled every year, Yu Guangyuan points out.

CSO: 4020

USE OF METHANE AS ENERGY FOR AGRICULTURE DISCUSSED

Methane Efficiency Described

Beijing RENMIN RIBAO in Chinese 13 Jun 79 p 2

[Unsigned article: "Vigorously Develop Methane Construction to Solve the Farm Energy Resources Problem"]

[Text] Hangzhou, 10 June -- NCNA -- In Zhejiang province rural methane construction has achieved great success. By April of this year the entire province had built 171,000 methane pits and methane has become basically established in 31 communes and over 500 brigades. Twenty-nine experimental small-scale methane electric power stations are in operation. The masses have heartily welcomed these efforts to find new ways to solve the electric power problems of the sideline occupations and the commune enterprises.

Zhejiang province lacks both coal and electric power, so there is a relatively tight supply of farm use power resources and the masses' livelihood also suffers from a shortage of fuels. The provincial party committee and the provincial revolutionary committee both place great value on the effort to popularize methane and have grasped this as an important measure in solving the problem of rural power resources. Most municipalities, districts and counties throughout the province have established special organizations to concretely handle the task of popularizing methane and moreover have given material support and financial aid to the masses to develop methane operations.

While the Zhejiang provincial departments in charge of methane strengthened their management of the task and endeavored to raise the utilization and production ratios of the methane pits, they also paid special attention to the problem of improving the burners to raise the combustion efficiency rate. This February they invited professors from the Combustion Teaching and Research Section in the Heating and Plumbing Engineering Department of the Shanghai Tongji University to a meeting to give leadership in the

step-by-step technological evaluation of 53 types of burners. Among these, 6 types of burners were chosen for their high combustion efficiency rate to be disseminated throughout the province.

Following the development of rural methane construction the multiple capabilities and benefits of methane became known. All communes and brigades that built methane pits and properly managed their work efforts not only solved the problem of fuels for their livelihood but also obtained large amounts of organic fertilizer.

In the past, the Sanjiaozhou [0005 6037 3166] area outside of the Jiaxing [0857 5281] district burned the greater part of the rice stalks and straw for fuel. After starting the methane operations they then had an assured source of fuel for their livelihood, and freed large amounts of straw to return to the fields, which improved the soil and raised farm crop productivity.

After the popularization of methane the Penglou [7685 2869] brigade of Paitou [3654 7333] commune in Zhuji [6175 2555] prefecture started up a small-scale methane operated electric power station which not only provided illumination but also solved the problem of electric power needs for pumping water, spray irrigation, and operating brigade enterprises. In 1978 after the basic dissemination of methane throughout the brigade there were savings of firewood and straw, increased numbers of pigs raised, increased accumulations of fertilizer and the average food grain yield per mu exceeded 1900 jin, an increase of 22 per cent over pre-methane production in 1976.

Rural Benefits of Methane Discussed

Beijing RENMIN RIBAO in Chinese 13 Jun 79 p 2

[Article: "The Prospects for Enlarged Development of Methane Operations"]

[Text] Recently our reporters Guo Yongwen [6735 3057 2429] and Shao Tingjun [6730 2185 6511] paid a special visit to Comrade Qian Xuesen [6929 1331 2773] to make inquiries in the subject of methane operations. He spoke with great enthusiasm about his personal views on this subject.

Comrade Qian Xuesen places great value on our rural methane operations. Since 1959 he has written several articles, spoken to the leading comrades and lectured at concerned conferences in order to emphasize the need for methane operations. All the while he has followed with great interest the various developments in this field. These few years our work in manufacturing,

utilization and dissemination of methane has made relatively rapid development. All rural areas are using very minor expenditures and simple methods in their methane operations and reaping multiple benefits, including increased power resources without environmental pollution. Comrade Qian Xuesen is extremely happy over the benefits which have already been obtained.

In his remarks to the reporters Comrade Qian Xuesen emphasized the importance of methane operations from the perspective of opening up agricultural resources and of elevating the efficiency of our utilization of organic energy resources. He said that right now because of the energy crisis in the capitalist world many countries are searching beyond coal and petroleum for new energy sources, for example, solar, tidal, geo-thermal, wind and organic sources. Although we possess abundant energy resources we must pay attention to making use of new energy resources. Rural methane operations are a major path toward the scientific and effective utilization of our organic energy resources. He said that there are large amounts of plant leaves, stalks, weeds and tree leaves which have great energy potential. The plant itself stores solar energy, about 1/2 to 2/3 of it in the leaves and stalks. To state it simply, the leaves and stalks of 1,000 jin of food grains plants have nearly the quantity of heat found in a half dun of coal. The leaves and stalks of last year's 150 billion jin of food grains plants have the heat quantity of over 200 million dun of coal, a truly remarkable figure. How then do we make use of the heat potential of leaves and stalks? If it is not done in a strictly scientific manner great waste will occur. If the plant leaves and stalks are used as fuel that simply makes use of the heat quantity and the greater part of the fertilizer is destroyed. If the plant leaves and stalks are returned to the fields then the fertilizer is utilized but the heat quantity is lost. Soaking the leaves and stalks to make methane not only utilizes the heat quantity but also utilizes the fertilizer content, which avoids any waste of energy resources. If the plant leaves and stalks are used as animal feed and the animal manure is then used to generate methane this will additionally produce animal products as well as utilize the heat quantity and the fertilizer content. In this way total utilization is made of the organic energy resources in the plant leaves and stalks.

Comrade Qian Xuesen also pointed out that rural methane operations will have ever greater effect on accelerating the building of modernization in agriculture. The present use of methane for cooking solves the great problem of fuel for country people and also reduces the forestry losses caused by using wood as fuel. This is great benefit to the building of forestry enterprises. As the available amount of methane increases the heat energy can be transformed into mechanical and electrical

energy which can then solve the problem of inadequate supplies of farm use fuel oil and electric power and thus promote agricultural mechanization and electrification. Methane is still a major raw material in the chemical industry. By linking up methane pits to ensure an adequate, stable source of methane, it can be used to develop commune and brigade industries and produce such products as nitrogen fertilizer. At present, methane is an organic power source which is derived through breaking down organic matter with a type of microorganism. There are other microorganisms in the natural world. They can be used to break down organic matter to obtain other useful gasses. Obviously, there is a broad road ahead in agriculture for the expanded use of organic energy.

Comrade Qian Kuesen pointed out that while we are making major developments in the five industries of agriculture, forestry, animal husbandry, side-line occupations and fishery there ought to be increased development of the microorganism in industry. There should be large-scale methane operations and enlarged utilization of microorganisms in agriculture. He also pointed out that the related scientific research departments ought to strengthen their scientific and technological research on methane and also provide technological guidance for the masses.

Methane and Modernization

Beijing RENMIN RIBAO in Chinese 13 Jun 79 p 2

[Article by Li Shaozhong [2621 4801 0022]: "Develop Utilization of Organic Energy Resources to Contribute to Agricultural Modernization"]

[Text] In the central committee's decision to accelerate agricultural development one item for expanding farm use energy resources was to develop the utilization of organic energy sources such as methane. It was placed among "the arrangements for carrying out agricultural modernization," and presented as a new subject to all of the nations broad cadres and masses and the scientific and technological workers engaged in research on organic energy resources and rural methane construction. We have abundant energy and material resources, but compared to the advanced world standard we are far behind in the area of building new energy sources. This is especially so in a nation of our great expanses and enormous population, because our present major electrical network and large-scale coal, oil, and gas industries are limited in the amount of energy resources they can supply to the broad rural areas. Throughout the entire nation on an annual basis, except for 24 million dun of coal for livelihood and 6 million dun for production, most fuels for livelihood depend on such organic resources as straw, firewood, and grasses. Such conditions are not favorable for developing agricultural production or improving the people's livelihood.

The direct combustion of straw, firewood and grasses makes only 10 per cent effective use of the heat energy of these materials. It is neither scientific nor economical and is an extreme waste of organic and material resources. The Energy Resources Research Laboratory of the Natural Resources Comprehensive Survey Committee of the Chinese Academy of Sciences performed an investigation and determined that based on this method of combustion satisfaction of the national annual need of rural livelihood fuels would require another 200 to 300 million dun of such materials. Looking at the majority of areas we see that there is a severe shortage of fuels in the countryside.

The experiences of the last few years prove that one sure method of solving the problem of fuel for rural livelihood is to collect a portion of the straw, human and animal wastes and other organic wastes in methane pits to undergo fermentation by microorganisms to produce a combustible gas consisting primarily of methane, thus making the change from burning straw to burning gas and implementing fuel gassification. This method of combustion is several times more efficient in effective heating power than directly burning straw. Furthermore, human and animal wastes and other organic wastes formerly not considered fuels now can be added to our energy and material resources. This reform of combustion methods is a revolution in our history of rural fuels and is a great technological innovation.

At present the countryside uses the technique of fermenting at normal atmospheric temperature and the equipment is quite simple. The methane pits are constructed with bricks, stones, cement and lime. All that is necessary is to follow a fixed pattern in constructing hermetic underground pits, attach iron pipes which lead to plastic tubing which in turn conducts methane to stoves and lamps, providing cooking heat and illumination.

According to calculations by the related scientific research departments, about 300 million dun of the national annual amount of crop straw could be allocated as material for methane pit fermentation. This together with human and animal wastes could produce over 100 billion cubic meters of methane, more than enough to provide the entire agricultural population with fuel for daily use. If the gassification of rural fuels is accomplished this will provide such benefits as saving coal, protecting the forests and developing animal husbandry and will release great amounts of manpower from such tasks as collecting firewood, cutting grass and transporting coal so they can develop agriculture, side-line occupations and commune enterprises.

Experience everywhere proves that fermenting straw in methane pits before returning it to the fields provides much more effective fertilization than directly returning it to the fields

or first burning it into ash fertilizer. Methane pit sediments not only contain the elements nitrogen, phosphorus and potassium necessary for crop maturation, but also contain abundant amounts of humus. This not only is beneficial to the crops for that particular year, but also nourishes the land for an extended period of time. It is a superior organic fertilizer and also is an excellent preparation for improving the soil. In any field that is continually treated for several years with methane pit sediments the physical and chemical properties of the soil show obvious improvement, the organic matter is increased, the unit weight is decreased, and the ability to preserve fertility is enhanced.

Simultaneously, the use of human and animal wastes, plant straw and other organic wastes to manufacture methane in the hermetic pits is effective in raising the effectiveness of fertilizers, reducing fertilizer run-off and also effectively reduces drought damage, thus ensuring the health of man and beast. Viewed in this way, methane operations also are a means of building rural health and protecting the environment.

Agricultural mechanization without energy resources is impossible. To solve the problems of mechanization of farm machinery and electrical power sources we must walk on two legs: while we are vigorously developing the usual coal, petroleum, natural gas and water power sources of energy we must increase our development of new energy sources, especially such organic energy sources as methane.

In recent years a few rural communes in Sichuan, Zhejiang, Jiangsu and Guangdong have commenced operation of small-scale methane power plants and small-scale methane operated electric stations, forging new roads using "primitive" methods to solve the problems of mechanical and electric power for farm equipment. The concrete methods of these communes are as follows: a 100 or 200 cubic meter capacity methane pit is built in the pig raising area and pig manure, straw and other organic wastes are used to ferment methane. A mixture of methane and diesel oil is used to power a small-scale internal combustion engine which turns a small-scale electric generator and other farm implements, thus generating electricity and providing power for the diversified operations in agriculture and side-line occupations. This whole operation solves the electric power problem and part of the mechanical power problem for a brigade or a production team. The people have given a special name to such methane powered small-scale electric power construction -- "small-scale methane electricity."

A comparison of large-scale and small-scale energy resources for mechanical and electric power shows that organic energy resources such as methane have their own special features:

1. Wide distribution with enormous power potential. The raw materials for methane are available wherever things grow, moreover it is an energy resource capable of reproduction and renewal. Solar energy is stored up as the plant undergoes photosynthesis and as long as there are both plants and sunlight this is an unlimited, inexhaustible energy resource.
2. It can be produced on site and at small expense and with great efficiency. Methane pits are built on the commune and the raw material for fermenting need not be brought in from outside. Burning a mixture of methane and diesel fuel produces diesel oil savings of about 70 per cent.

With the appearance of methane in production of mechanical power and in the small-scale generation of electricity, our development of organic energy resources thus moves from the realm of livelihood to the realm of production. With the construction of small-scale methane mechanical power stations and small-scale methane electric power stations as new farm energy resources the pace of agricultural mechanization and electrification can be accelerated greatly. Our broad cadres, masses and the scientific and technological workers now engaged in research on organic energy resources and rural methane construction are filled with determination and have boundless faith. They hope that the national planning departments, scientific and technological departments and all related departments can quickly include this task in the national economic construction plan, the energy resources construction plan, the scientific and technological plan, the environmental protection plan and will strengthen the leadership, unify their understanding, formulate suitable directions, policies and economic measures, and firmly grasp this important task in order to let organic energy resources be developed and utilized in its proper function in this great progression toward implementing Chinese agricultural modernization.

11582
CSO: 4007

'RENMIN RIBAO' READER URGES END TO 'BACK DOOR' TRADING

Beijing XINHUA in English 0209 GMT 20 Aug 79 OW

[Text] Beijing, 20 Aug (XINHUA)--"If the 'back door' is not shut, the peasants will suffer," says Wen Yangfu from Jishui County in east China's Jiangxi Province in a letter carried in today's PEOPLE'S DAILY.

He notes that materials for farm use should be distributed and allocated under unified plan, that all departments and individuals found extorting should be seriously punished, and that leading cadres in particular should take steps to shut the "back door."

He goes on to say that only around 40 percent of the amount of chemical fertilizer purchased in his county this year came from state allocation. The rest came through the "back door," and some rural communes and subdivisions acquired as much as 70 percent through "connections."

Since the amount of fertilizers distributed under the plan was insufficient, some production teams used pork, edible oil, peanuts and other farm produce to make up the difference, sometimes at 40 percent higher than the state price for fertilizer. Higher prices were also demanded for insecticides, farm machinery spare parts, engine oil and diesel oil purchased through pull. The "back door" practices must be brought to a halt or relations between workers and peasants and between the party and the people would be undermined, he warns.

CSO: 4020

NATIONAL

BRIEFS

SPIDERS TO CONTROL RICE PESTS--Hong Kong, 12 Aug--China is using spiders to control pests in rice fields, the NEW CHINA NEWS AGENCY (NCNA) reported today. This followed a discovery by agro-science workers in central China's Hunan Province, a major rice-producing area. Surveys in various localities show that many kinds of spiders are the natural enemy of rice pests, such as plant and leaf hoppers. A total of 125 specimens of spiders have been collected in 18 provinces and one municipality of China, NCNA said. Ten of these species are most effective, including the small black spider (*erigomedium graminitoloum*) and the spotted spider (*theridium octomaculatum*).--NAB/AFP [Text] [Rangoon THE WORKING PEOPLE'S DAILY in English 14 Aug 79 p 3]

CSO: 4020

BRIEFS

ANHUI PREFECTURE SUMMER PRODUCTION--The people in Puyang Prefecture had reaped a bumper harvest of wheat from 10 million mu and rape from 350,000 mu this year. Since late June, the counties in this prefecture had all held rallies to cite the model peasants in the production of wheat and rape seeds and symposiums to exchange experiences in such production. Some 8,963 advanced units and 246 labor models and individuals were cited and rewarded throughout the prefecture. Preparation for autumn sowing has now been vigorously launched in the prefecture. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 22 Aug 79 HK]

ANHUI PREFECTURE RICE--By 8 August the people in Anqing Prefecture had fulfilled the tasks of crash reaping and sowing this year. They have reaped 2.6 million mu of early rice throughout the prefecture and transplanted double-cropping late rice seedlings to 2.2 million mu. The peasants in this prefecture are tending late rice with prevention of insect pests as the main task. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 9 Aug 79 HK]

ANHUI PREFECTURE PROMOTES AGRICULTURE--There are 1.87 million mu of cultivated land in Wuhu Prefecture which can be readily hit by waterlogging. In the next 3 years, Wuhu Prefecture plans to build 46 reservoirs, increase the installed capacity of its electric irrigation and drainage pumping stations by 9,800 kw, popularize the application of sprinkler irrigation to 88,000 mu of cultivated land, increase the installed capacity of its small hydroelectric stations by 3,700 kw, expand the tea-oil tree production to an area of 230,000 mu and expand the tung oil tree production to an area of 190,000 mu. By 1981, the prefecture plans to have 110 jin of chemical fertilizer for every mu of its cultivated land. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 13 Aug 79 HK]

ANHUI COUNTY ANIMAL HUSBANDRY--There are now 51,800 goats in Si County, an increase of 66 percent over last year. A total of 50,000 sheets of goat skin have been purchased, overfulfilling the whole year's tasks ahead of schedule. Some 132,400 jin of wool have also been purchased, overfulfilling the yearly plans by 32 percent. The people in this country have a long history of raising goats, since there are good conditions in this country. Many countries buy the goat skins from this county. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 21 Aug 79 HK]

ANHUI RICE—Crash reaping and sowing in the rice-producing areas in south of Huai River, Anhui, have been completed. By 7 August, 11 million mu of early rice had been reaped and threshed, while 10 million mu of double-cropping late rice had been sown by "autumn begins" [7 August]. Affected by weather, ripening of early rice was postponed by 1 week this year. When crash reaping and sowing reached the peak period at the end of July, daily progress of reaping and sowing was 1.5 million mu, an increase of 300,000 mu over the normal speed of progress. In Wuhu and Anqing prefectures, the daily progress of reaping and sowing had increased from 300,000 mu to 350,000 mu this year. The unit output of early rice this year is expected to exceed 1976, the highest recorded previously. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 16 Aug 79 HK]

ANHUI PREFECTURE ANIMAL HUSBANDRY—According to statistics at the end of June, there were 663,000 herd of livestock—cattle and horses—in Fuyang Prefecture, an increase of 4.7 percent over the corresponding period of last year. There were also 2.157 million pigs in the prefecture, an increase of 2.9 percent over the corresponding period of last year, and 1.190 million goats as well, an increase of 58 percent over the corresponding period. The agricultural departments of the prefecture, counties and municipality have appointed a principal leading member to grasp animal husbandry. The prefectoral CCP Committee has recently held a work conference on animal husbandry. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 21 Aug 79 HK]

ANHUI COUNTY MOUNTAINOUS AREA—In the past 2 years, the people in Jinzhai County planted 243,100 mu of trees on mountainous areas, built 1,700 water conservancy projects and 11 small hydroelectric power stations, installed 27 km high tension electric wires and 160 km of low tension electric wires and constructed 16 highways in the mountain with a total length of 176 km and 43 bridges. Some 90 percent of the communes in the county can now be reached by motor vehicle. There are now 1,072 commune and brigade enterprises, an increase of 50 percent over 1976. The total value of their output reached 9.15 million yuan. In the first half of this year, the total output of summer grain increased by 18.1 percent over last year. Some 776,000 jin of spring cocoons were also produced. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 22 Aug 79 HK]

CSO: 4007

FUJIAN

BRIEFS

FUJIAN PREFECTURE RICE—In Jianyang Prefecture, the average per mu yield of early rice increased by 10 percent. [Fuzhou Fujian Provincial Service in Mandarin 0300 GMT 21 Aug 79 HK]

LONGXI PREFECTURE RICE—The people in Longxi Prefecture increased the output of early rice by 60 million jin over last year, an increase of 6 percent. Some 10 communes in the prefecture surpassed the national agricultural development plans. There were only five last year. The number of brigades that could reap a per mu yield of 1,000 jin has increased from 13 last year to 36 this year. Some 36 communes can now produce 1 to 3 million jin of early rice this year. [Fuzhou Fujian Provincial Service in Mandarin 0300 GMT 21 Aug 79 HK]

CSO: 4007

BRIEFS

GUANGDONG PREFECTURE AGRICULTURE—According to incomplete statistics, the people in Meixian Prefecture reaped 11.5 million jin of soybeans this year, an increase of 30 percent over last year. Many communes and brigades made use of slopes and dry land to grow soybeans. In Xingning County alone, 37,800 mu of soybeans were planted with a total output of 3.59 million jin. The peasants in Dapu County were not used to planting soybeans, but this year they had also planted 3,200 mu. Their output doubled that of last year. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 16 Aug 79 HK]

GUANGDONG RICE OUTPUT—The total output of early rice in Taimishan County this year is 375 million jin. The per mu yield is 497 jin. During farming preparation for early rice this year, the county CCP Committee allocated 2 million yuan to help the production teams buy nylon sheets for cultivating seedlings. Before transplanting of early rice, the relevant departments of the county distributed 29.2 million jin of chemical fertilizer to the production teams. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 10 Aug 79 HK]

GUANGDONG COUNTY PROMOTES RICE PRODUCTION—The yields of Qingyuan County's 600,000 mu of early rice have exceeded 300 million jin and topped 500 jin in the average per-mu rice yield. Compared with their highest levels in history, the county's total rice output and per-mu rice yield have increased by 8 percent and 8.4 percent respectively. The county's total output of corn this year increased by 92 percent as compared with the same period last year. The county has expanded its peanut planting area by over 30,000 mu and its soybean planting area by over 20,000 mu. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 13 Aug 79 HK]

GUANGDONG COUNTY RICE—Despite a reduction of 6,000 mu, the peasants in Xingning County were able to increase the production of early rice by 20 million jin over last year, an increase of 8 percent. The average per mu yield also increased by 59 jin over last year, an increase of 8.8 percent. All the 43 communes in the county increased their production. The areas sown to hybrid early rice this year increased from 200 mu last year to 110,000 mu with a per mu yield of 800 jin. [Guangzhou Guangdong Provincial Service in Mandarin 1130 GMT 21 Aug 79 HK]

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BRIEFS

GUANGXI PREFECTURE RICE--According to statistics on 20 August, the peasants in Yulin Prefecture have applied the first additional manure and weeded 2.11 million mu of late rice, accounting for 47.4 percent of the total area sown to late rice. The second additional manure was applied to 363,000 mu. Some 560,000 mu were saved from insect pests. In Luchuan County, each mu of late rice was given 30 to 50 jin of ammonium carbonate, 40 to 50 jin of phosphatic fertilizer and 15 to 20 jin of urea. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 22 Aug 79 HK]

GUANGXI PREFECTURE AGRICULTURE--By 6 August, the people in Qinzhou Prefecture had transplanted late seedlings to 2.58 million mu, completing 89.7 percent of their transplanting plans. Summer harvesting was completed in this prefecture on 25 July. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 7 Aug 79 HK]

GUANGXI COUNTY RICE--The leaders in Xing'an County concentrated 80 percent of the labor forces and agricultural machinery on crash reaping and sowing. By 2 August, 222,000 mu of early rice had been reaped, accounting for 93.7 percent of the areas that should be reaped, transplanting had been done on 212,600 mu of late rice, accounting for 92.1 percent of the planned areas. Ripening of early rice in this county was postponed this year, causing difficulties to crash reaping and sowing. Some 93,000 laborers are taking part in crash reaping and sowing in this county. Some 1,000 medium and small tractors are also working on the same tasks. Some 80 percent of the farmland are plowed by machines. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 7 Aug 79 HK]

GUANGXI COUNTIES RICE--The people in Mengshan and He counties have reaped a bumper harvest of early rice this year. The nitrogenous fertilizer works in Mengshan County has increased the monthly output of synthetic ammonia from 200 tons to 375 tons, providing more chemical fertilizer for field management. By clearing the warehouses, the people in this county have delivered 3.2 million jin of chemical fertilizer to the production teams. In He County, the people have currently collected 5.4 million dan of manure of all descriptions, an increase of 1 million dan over the corresponding period of last year. At present 250,000 mu of farmland in He County have been weeded and received additional manure. [Nanning Guangxi Regional Service in Mandarin 1130 GMT 23 Aug 79 HK]

GUANGXI COUNTY HYBRID RICE—At present, the peasants in Xing'an County have weeded and applied additional manure to 113,000 mu of hybrid rice for the first time, while some have been done so for the second time. This year, the areas sown to hybrid rice accounted for 48 percent of the total areas sown to late rice. In field management, the county CCP Committee pays attention to preventing insect pests. [Xanning Guangxi Regional Service in mandarin 1130 GMT 23 Aug 79 HK]

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BRIEFS

BEIJING COMMUNE, BRIGADE ENTERPRISE—In the first half of this year, the total output value of the key commune enterprises in Beijing reached 215,890,000 yuan, accounting for 50 percent of the yearly plans, an increase of 26 percent over the corresponding period of last year. In the first half of this year, the communes in the suburban areas of Beijing have set up an additional 163 enterprises. [Beijing City Service in Mandarin 2300 GMT 9 Aug 79 HK]

CSO: 4007

HEILONGJIANG

BRIEFS

HEILONGJIANG WHEAT HARVEST--(Xiansanjiang) State Farm Administration Bureau, Heilongjiang Province, has turned over to the state over 7 million jin of wheat as of now. It expects to harvest over 300 million jin of wheat from 2.05 million mu. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 15 Aug 79 OW]

HEILONGJIANG COUNTY IRRIGATION--In the past 4 years, Anda County, Heilongjiang, used 5.5 million yuan of state funds and 7.9 million yuan of self-raised funds to sink 1,800 pump wells, complete one reservoir with storing capacity of 45 million cubic meters and four projects for checking water flow. Another reservoir and four pumping stations are under construction. More than 22 million cubic meters of stone and earth have been removed. This year the county has brought 270,000 mu of farmland and 30,000 mu of grassland under irrigation. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 18 Aug 79 OW]

STATE FARM PAPER MAKING--The paper mill of the Jiusan state farm bureau in Heilongjiang was founded in 1975. It has been making paper with wheat stems as raw material. The Jiusan state farm cultivated 1.65 million mu of wheat this year which will yield more than 100,000 tons of wheat stems. This amount of wheat stems can be turned into 10,000 tons of paper and net a profit of 3 million yuan. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 9 Aug 79 OW]

ANIMAL HUSBANDRY--Seven counties including Anda, Zhaozhou and Zhaoyuan under Suihua Prefecture, Heilongjiang Province, have made progress in grassland building to develop animal husbandry. These counties plan to build 250,000 mu of grassland this year, of which 81,000 mu have been completed. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 8 Aug 79 OW]

HEILONGJIANG FARM CROPS--Songhuajiang Prefecture, Heilongjiang, has applied nitrogenous fertilizer to 10 million mu of crops. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 20 Aug 79 OW]

BRIFPS

HUBEI PREFECTURE CHEMICAL FERTILIZER—The chemical fertiliser front in Xiamen Prefecture has fulfilled the production tasks of producing fertiliser for late rice ahead of schedule. From early June to mid-August, the prefecture produced a total of 21,800 tons of chemical fertilizer, surpassing the original plans by 9.3 percent, and increasing the supply of chemical fertiliser for late rice by 6,000 tons over last year. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 22 Aug 79 HK]

HUBEI PREFECTURE PLANT DISEASE—In Jingzhou Prefecture recently, due to persistent high temperature, there have been the disaster of insect pests in the cotton plants in some communes and brigades. The prefectoral party committee has decided to mobilize the masses to adopt effective measures to prevent insect pests, so as to reap bumper harvests of grain and cotton. The prefecture, counties and communes have formed a insect pest prevention command, while the brigades and production teams a full-time prevention group. In preventing insect pests, the places in the prefecture have established the system of management responsibility. At present, growth of 5.2 million mu of mid-season rice and 4.2 million mu of cotton is well. [Wuhan Hubei Provincial Service in Mandarin 1100 GMT 9 Aug 79 HK]

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BRIEFS

HUNAN PREFECTURE DROUGHT—Since this year, there have been less rainy days in Chenzhou Prefecture and the temperature has been high. Drought has developed quickly. There are 340,000 mu of rice fields that have no water for transplanting late rice, while 400,000 mu are affected by drought. The people in this prefecture are firmly tending 2 million mu of late rice. The prefectural and the county CCP Committees have organized 2,000 cadres to go deep into the first line of resisting drought. The banks have provided 70.34 million yuan for resisting drought, an increase of 25.03 million yuan over the corresponding period of last year. [Changsha Hunan Provincial Service in Mandarin 2315 GMT 12 Aug 79 HK]

HUNAN COUNTY FORESTRY—Ling County is an important bamboo- and timber-producing area in Hunan. Between 1961 and 1975, the forest areas were reduced by 220,000 mu with an average of yearly reduction of 15,000 mu. Some 1.66 million cubic meters of timber were reduced with an average yearly reduction of 110,000 cubic meters. Even in recent years, unscrupulous lumbering is still very serious. This has extremely affected agricultural production. Realizing such serious situations exist, the county CCP Committee has strengthened propaganda and education and revealed that the 2 million mu of forest in the county can produce a yearly timber output of 600,000 cubic meters at a cost of 9 million yuan. [Changsha Hunan Provincial Service in Mandarin 1100 GMT 24 Aug 79 HK]

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BRIEFS

JIANGSU TELEPHONE CONFERENCE--The Jiangsu Provincial CCP Committee held a telephone conference on 13 July, calling on the workers of the chemical fertilizer industry to whip up a new upsurge in increasing production and practicing economy, to work hard in the third quarter and to strive for higher production in support of agricultural goals. Comrade Bao Houchang, secretary of the provincial CCP committee, presided over the meeting and spoke. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 14 Jul 79 OW]

JIANGSU COUNTY'S RICE ACREAGE--Jintan County, Jiangsu, planted hybrid rice to 230,000 mu, 40 percent of the total paddy rice acreage in the county. The county pays particular attention to field irrigation and control of pests and plant disease to insure a bumper harvest. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 15 Aug 79 OW]

GRAIN PRODUCTION--The average per-mu yield of grain in Songjiang County under the jurisdiction of Shanghai Municipality doubled the target set by the national program for agricultural development last year. The total grain output of the county in 1978 was 126.28 million jin [catties] more than that of 1977. The average per-mu yield of cotton of the county in 1978 was 190 jin and the average per-mu yield of rapeseed was 279 jin, both setting all-time records. The total output of summer grain this year again increased by 38.26 million jin over that of 1978. [Shanghai City Service in Mandarin 2300 GMT 10 Aug 79 OW]

HUAIYIN PREFECTURE WATERLOGGING--Huaiyin Prefecture has replanted farmcrops to 275,000 mu of the 600,000 mu of land which became waterlogged after three heavy rains during the period from 15 July to 25 July. The prefecture has cut drainage ditches in 6 million mu of dry fields. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 14 Aug 79 OW]

JIANGSU COUNTY PEPPERMINT PRODUCTION--Haimen County, Jiangsu, this year has produced 730,000 jin of peppermint oil, a 20 percent increase over the 1978 output. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 20 Aug 79 OW]

BRIEFS

JIANGXI PREFECTURE DROUGHT--The leadership of all levels in Fuzhou Prefecture have paid close attention to the development of drought, so as to reap a bumper harvest of late rice and late and autumn crops. On the eve of crash reaping and sowing, the counties and municipalities in this prefecture had all held meetings to prevent and resist drought. The two levels of prefecture and counties had organized inspection groups of water conservancy projects with the participation of the leadership cadres and technicians. There are 11 key mechanical and electrical irrigation stations still under construction in Linchuan County. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 3 Aug 79 HK]

JIANGXI COUNTY RICE--The total output of early rice in Yushan County this year is 26 million jin, an increase of 6 million jin over last year. Some 10 brigades and 251 production teams in the county have reached the national agricultural development plans in the per mu yield of early rice. The per mu yield in 17 production teams had surpassed 1,000 jin. This year, 90 percent of the double-cropping late rice throughout the county is hybrid rice. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 10 Aug 79 HK]

JIANGXI MUNICIPALITY RICE--In 1979, the people in the countryside of Pingxiang Municipality have overcome cold spells, floods and insect pests and increased the output of early rice over 1978. They had basically fulfilled crash reaping and sowing by the end of July. By 2 August, 120,000 mu of late rice had received additional manure, while another 250,000 mu had been treated once against insect pests. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 3 Aug 79 HK]

JIANGXI COUNTRY GRAIN PROCUREMENT--By 13 August, the people in Yiyang County have stored 55.77 million jin of grain, overfulfilling the task of storing summer grain. Some 200 vehicles were mobilized throughout the county to transport the grain to the stores. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 17 Aug 79 HK]

JIANGXI COUNTY'S EARLY RICE--Xiushui County has reaped a bumper harvest of 340,000 mu of early rice. Though the areas of early rice in the county have been reduced by some 15,000 mu as compared with last year. The total yield has increased by more than 10 percent as compared with the great bumper harvest of 1978. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 19 Aug 79 HK]

JIANGXI MUNICIPALITY'S EARLY RICE--Pingxiang Municipality has reaped a bumper early rice harvest this year. The total yield increased by 5 percent as compared with last year and the per-mu yield reached some 740 jin. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 19 Aug 79 HK]

JIANGXI COUNTY RICE--The peasants in Yushan County increased the production of early rice this year by 10 percent over last year's increase of 20 million jin. The average per mu yield reached 640 jin. In the second half of last year, the county experienced drought for 100 days. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 22 Aug 79 HK]

JIANGXI COUNTY RICE--The peasants in Xingan County increased the output of early rice this year by 10 percent over last year. There are 340,000 mu of early rice in the county this year. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 22 Aug 79 HK]

JIANGXI PREFECTURE ANIMAL HUSBANDRY--There are large areas of forests and grassland in Ganzhou Prefecture suitable for raising cattle, goats and rabbits. In last June, the prefectoral CCP Committee held a special meeting in Shicheng County to make concrete measures for developing cattle, goat and rabbits. The meeting has decided to raise the total output value of animal husbandry to 40 percent of the total output value of agriculture by 1986. The communes and brigades have now set up 58 cattle ranches with 577 cattle and 48 goat ranches with 1,300 goats. According to plans there will be 553 cattle and goat ranches by the end of the year. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 8 Aug 79 HK]

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JILIN

BRIEFS

JILIN COUNTY HOG PROCUREMENT--During the January-June period, Lishu County, Jilin Province, procured 6,570 more hogs than that of the corresponding period of last year. [Changchun Jilin Provincial Service in Mandarin 1100 GMT 1 Aug 79]

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NEI MONGGOL

BRIEFS

NEI MONGGOL LIVESTOCK--According to statistics released at the end of June, the total number of livestock in Zhelimu League, Nei Monggol Autonomous Region, reached 3.69 million head, topping the highest figure on record by 12,000 head. [Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 30 Jul 79 SK]

NEI MONGGOL COUNTY WHEAT--Wuyuan County, Nei Monggol Region, reaped a bumper harvest of wheat on 320,000 mu of land this year. [Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 31 Jul 79]

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BRIEFS

ANIMAL HUSBANDRY--Since the smashing of the "gang of four," the number of animals of Maduo County, Qinghai, has increased at an annual rate of 9 percent. During the first half of this year, the county successfully delivered and raised 150,000 head of various young animals. By the end of June, Maduo County had planted 5,550 mu of fodder grass and cleared 757,000 mu of pastures of mice. [Beijing XINHUA Domestic Service in Chinese 0703 GMT 10 Aug 79 OW]

CRAIN PRODUCTION--The masses in (Shahe) District of Guide County, Qinghai Province, planted 46,000 mu of grain crops this year, accounting for 40 percent of the total acreage of farmland sown to grain crops in the county. As of now, the masses in the district have already completed harvest work from 50 percent of farmland sown to grain crops. [Xining Qinghai Provincial Service in Mandarin 1430 GMT 10 Aug 79 OW]

GRASSLAND BUILDING--The Guole Tibetan Autonomous Prefecture, Qinghai Province, has embarked on the work of building grassland in a comprehensive way. This prefecture has built more than 12,000 mu of grassland and improved fodder bases covering an area of 1.2 million mu. [Xining Qinghai Provincial Service in Mandarin 1430 GMT 9 Aug 79 OW]

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SHANGHAI

BRIEFS

SHANGHAI SUMMER FARMING--Shanghai completed harvesting of summer crops and sowing of autumn crops on 12 August. Quality of early rice harvested from 1.92 million mu is good while per mu output is 10 percent higher than last year. Quality of corn harvested from 190,000 mu is also good. Dryland rice seedlings of 2.75 mu have been transplanted. Field management of cotton on 1.4 million mu has been strengthened. Efforts are made to insure that 50,000 dan of vegetables are supplied to the market daily. [Shanghai City Service in Mandarin 0000 GMT 14 Aug 79 OW]

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SICHUAN

BRIEFS

COUNTY WATER CONSERVANCY--In the past 4 years, Youyang County of Sichuan Province built over 70 medium- and small-sized reservoirs, over 900 ponds and 23 small-sized hydroelectric power stations, and expanded its irrigated area by 135,000 mu. [Beijing Domestic Service in Mandarin 1000 GMT 14 Aug 79 OW]

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XINJIANG

BRIEFS

XINJIANG ARMY FARM PRODUCTION--The Shihezi agriculture-industry-commerce integrated enterprise this year reaped good harvests from its 610,000 mu of wheat. Its wheat production this year exceeded 180 million jin. [Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 17 Aug 79 OW]

GRAIN OUTPUT--Urumqi, 8 Aug--The Qapqal Xibo Autonomous County, Xinjiang Autonomous Region, has made progress in grain production and livestock raising. In 1978 this county reported an increase in grain output and oil-bearing crops by 39 percent and 72 percent respectively over 1977. The number of livestock also rose by 5 percent. The achievements were attributed to the conscientious implementation of the party's rural policies. [Beijing XINHUA Domestic Service in Chinese 8 Aug 79 OW]

XINJIANG WELL SINKING--Urumqi, 20 Aug--During the first 7 months of this year, 4,900 wells were sunk in Xinjiang. At present, there is a total of 33,000 wells in this autonomous region, including 26,000 power-operated wells. Every year, these wells pump out 3 billion cubic meters of underground water to irrigate 3.29 mu of farmland and provide drinking water for 2.7 million head of livestock in the region. [Beijing XINHUA Domestic Service in Chinese 0259 GMT 20 Aug 79 OW]

XINJIANG BUMPER HARVEST--Urumqi, 20 Aug--Xinjiang expects to reap a bumper harvest of wheat from its 20 million mu of wheat fields. The total output may increase by 6 percent over that of 1978. The total output of wheat in Ili and Hami prefectures is expected to increase by over 10 percent compared to that of last year. [Beijing XINHUA Domestic Service in Chinese 0140 GMT 20 Aug 79 OW]

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BRIEFS

ZHEJIANG COUNTY BEAN HARVEST--Chun'an County, Zhejiang Province, has reaped a bumper harvest of June beans from 79,433 mu. The total output reached 15.15 million jin or an increase of 11.8 percent over last year. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 15 Aug 79 OW]

ZHEJIANG COUNTY SOYBEAN HARVEST--Xiaoshan County, Zhejiang Province, has reaped a bumper harvest of soybean from 40,000 mu cultivated on tidal land. The total output reached more than 6 million jin. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 15 Aug 79 OW]

ZHEJIANG COUNTY WATER CONSERVANCY--Jinhua County, Zhejiang Province, has completed 435 small water conservancy projects during the first half of this year increasing the water storage capacity by 15 million cubic meters. These projects have enlarged the acreage of farmland that insures good crops regardless of drought or rain by 24,000 mu and brought an additional 37,000 mu of farmland under effective irrigation. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 16 Aug 79 OW]

ZHEJIANG COUNTY FARMLAND IMPROVEMENT--In the past 3 years, Linan County, Zhejiang, afforested 200,000 mu of land; built 3,300 water conservancy projects, 18,000 mu of farmland which guarantees harvests irrespective of drought and flood, and 14 small hydroelectric power stations with a total power generating capacity of 2,187 kilowatts. It also improved 89,000 mu, leveled 72,000 mu and reclaimed 26,000 mu of farmland. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 17 Aug 79 OW]

ZHEJIANG COUNTY FIELD MANAGEMENT--Huangyan County, Zhejiang, has successfully protected its 320,000 mu of hybrid late rice against plant disease and insect pest. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 18 Aug 79 OW]

ZHEJIANG COUNTY LATE RICE--Ruian County, Zhejiang, has planted 170,000 mu of late rice this year, topping last year by 110,000 mu. This year it has reaped a bumper harvest from its 318,000 mu of early rice. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 18 Aug 79 OW]

ZHEJIANG COUNTY GRAIN PRICE--This year Pujiang County has reaped a bumper harvest of spring grain and early rice. Having fulfilled state procurement plan, the peasants have sold their grain at trade fairs in towns and countryside at low prices. The price of early rice has dropped to 16-18 yuan per dan, the all-time low level. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 18 Aug 79 OW]

WUYI COUNTY RICE--After summer harvesting and sowing, Wuyi County, Zhejiang, carried out field management on 14,000 mu of double-crop late rice and 110,000 mu of hybrid late rice. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 14 Aug 79 OW]

JINHUA COUNTY HYBRID RICE--Jinhua County, Zhejiang, has set up over 140 high-yield hybrid late rice plots each of around 1,000 mu or larger. Total acreage of these high-yield plots has reached 128,000 mu, or 64 percent of Jinhua County's total hybrid late rice crops. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 14 Aug 79 OW]

LINAN COUNTY RICE HARVEST--By 5 August, Linan County, Zhejiang Province, had completed early rice harvesting on 170,000 mu of a total of 200,000 mu of early rice crops. [Beijing Domestic Service in Mandarin 1000 GMT 12 Aug 79 OW]

PINGYANG COUNTY RICE OUTPUT--Pingyang County, Zhejiang, has reaped a bumper harvest of early rice from 520,000 mu this year. Both total and per unit yield rose more than 10 percent over last year. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 11 Aug 79 OW]

ZHEJIANG PREFECTURE RICE PRODUCTION--Wenzhou Prefecture, Zhejiang, this year has reaped good harvests of its 1.7 million mu of early rice, with a 10 percent increase in production as compared with 1978. In 1979 Wenzhou Prefecture popularized use of seeds of fine strains in 1.2 million mu of land. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 20 Aug 79 OW]

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May 76 pp 1-2

[Written by Crop Breeding Institute of Heilongjiang Provincial Agricultural
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Feb 78 pp 1-3

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[Written by Agricultural Crops Teaching and Research Group, Hunan Agricultural College. Published by Renmin Chubanshe]

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in Chinese Jan 76

[Written by Agricultural Bureau, Hunan Revolutionary Committee. Published
by Hunan Renmin Chubanshe]

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Hebei JIANZUO TAOZHONG CHUANG GAOCHAN [INTERPLANTING BRINGS HIGH YIELDS]
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by Hebein Renmin Chubanshe]

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